

CLAIMS:

1. An isolated nucleic acid comprising DNA encoding an antibody which specifically cross-reacts with two or more different Apo-2L receptors.

2. The nucleic acid of claim 1 wherein the antibody comprises a monoclonal antibody.

*have an it not be monoclonal*

3. The nucleic acid of claim 1 wherein the antibody specifically binds to Apo-2 polypeptide and further specifically cross-reacts with another Apo-2L receptor.

4. The nucleic acid of claim 1 wherein the antibody specifically binds to Apo-2 polypeptide and further specifically cross-reacts with DR4.

5. The nucleic acid of claim 1 wherein the antibody is an agonistic antibody.

6. The nucleic acid of claim 1 wherein the antibody is a blocking antibody.

7. The nucleic acid of claim 1 wherein the antibody is an antibody fragment.

8. The nucleic acid of claim 1 wherein the antibody comprises non-human hypervariable region residues and human framework region residues.

9. The nucleic acid of claim 1 wherein the antibody is a human antibody.

10. The nucleic acid of claim 1 wherein the Apo-2L receptors  
5 are native sequence Apo-2L receptors.

11. The nucleic acid of claim 5 wherein the agonistic antibody binds to Apo-2 polypeptide or DR4.

10 12. An isolated nucleic acid comprising DNA encoding an antibody having the biological characteristics of a monoclonal antibody selected from the group consisting of 3H1.18.10 (produced by the hybridoma having ATCC Accession No. HB-12535), 3H3.14.5 (produced by the hybridoma having  
15 ATCC Accession No. HB-12534) and 3D5.1.10 (produced by the hybridoma having ATCC Accession No. HB-12536).

13. The nucleic acid of claim 12 wherein the antibody binds to the same epitope as the epitope to which a monoclonal  
20 antibody selected from the group consisting of 3H1.18.10 (produced by the hybridoma having ATCC Accession No. HB-12535), 3H3.14.5 (produced by the hybridoma having ATCC Accession No. HB-12534) and 3D5.1.10 (produced by the hybridoma having ATCC Accession No. HB-12536) binds.

25

14. The nucleic acid of claim 12 wherein the antibody has the hypervariable region residues of a monoclonal antibody selected from the group consisting of 3H1.18.10 (produced by the hybridoma having ATCC Accession No. HB-12535), 3H3.14.5  
30 (produced by the hybridoma having ATCC Accession No. HB-12534) and 3D5.1.10 (produced by the hybridoma having ATCC Accession No. HB-12536).

15. A vector comprising the nucleic acid of claim 1.

16 A host cell comprising the nucleic acid of claim 1.

5 17. A method of producing an antibody comprising culturing the host cell of claim 16 under conditions wherein the DNA is expressed.

18. The method of claim 17 further comprising recovering the  
10 antibody from the host cell culture.

19. The method of claim 18 further comprising combining the recovered antibody with a pharmaceutically acceptable carrier.

15 20. The method of claim 18 further comprising conjugating the recovered antibody with a heterologous molecule.

21. The method of claim 20 wherein the heterologous molecule  
20 is polyethylene glycol, a label or a cytotoxic agent.